

**ABSTRACT OF THE DISCLOSURE**

A method and system for reducing non-linear signal degradation effects of WDM optical signals exacerbated by highly correlated bit patterns of optical waveforms in neighboring optical channels. Embodiments include offsetting the transmission times of signals in neighboring channels, and applying different scrambling patterns to the respective data streams prior to transmission on neighboring optical channels.

1. A method for reducing non-linear signal degradation effects of WDM optical signals exacerbated by highly correlated bit patterns of optical waveforms in neighboring optical channels, comprising:  
offsetting the transmission times of signals in neighboring channels;  
applying different scrambling patterns to the respective data streams prior to transmission on neighboring optical channels.